

**BEFORE
THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-2, SUB 1300**

In the Matter of)	
)	
Application of Duke Energy Progress, LLC)	DIRECT TESTIMONY OF
For Adjustment of Rates and Charges)	TIM S. HILL FOR DUKE
Applicable to Electric Utility Service in)	ENERGY PROGRESS, LLC
North Carolina and Performance-Based)	
Regulation)	

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Tim S. Hill. My business address is 526 South Church Street,
4 Charlotte, North Carolina, 28202.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by Duke Energy Business Services, LLC ("DEBS"), as Vice
7 President, Coal Combustion Products ("CCP") Operations, Maintenance and
8 Governance. In this docket, I am testifying on behalf of Duke Energy Progress,
9 LLC ("DEP" or the "Company"). As more fully discussed below, my
10 responsibilities include providing governance and operations leadership to
11 Duke Energy Corporation's ("Duke Energy") regulated operating companies,
12 including DEP.

13 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
14 **PROFESSIONAL EXPERIENCE.**

15 A. I received my Bachelor of Science degree in Nuclear Engineering from the
16 University of Florida in 1989, and my Master of Science in Engineering from
17 the University of Central Florida in 1994. From 1978 to 1999, I served in
18 various roles in the US Navy, retiring from the nuclear surface fleet. After the
19 US Navy, I served as the General Manager Technical Operations for Delta Air
20 Lines for five years, overseeing the engineering and maintenance for Delta's
21 fleet of Boeing aircraft.

22 In 2003, I joined Duke Energy's fossil fleet operations, where I served
23 in various roles such as engineering manager, supporting the coal plants in

1 North and South Carolina. I served as maintenance manager at the Cape Fear
2 plant and as station manager at the H.F. Lee plant. I have extensive firsthand
3 experience in the operational support, maintenance, and engineering
4 requirements for coal combustion residuals (“CCR,” or coal ash) management,
5 including ash pond and landfill design, construction, and maintenance, as well
6 as CCR byproduct sales and beneficial reuse. In 2008, I joined Duke Energy's
7 nuclear fleet operations, serving in a corporate governance role, and then as
8 maintenance manager at the Shearon Harris nuclear plant.

9 In 2014, I joined the newly formed CCP organization as the General
10 Manager of CCP Operations and Maintenance. In this role I oversaw a team of
11 engineers, maintenance technicians, and contractors that performed all aspects
12 of maintenance and operations of the landfills, dams, and other CCR facilities
13 in the Carolinas and Florida. My team was tasked with creating and
14 implementing the in-field processes and procedures required to comply with all
15 state and federal regulatory requirements. In May of 2021, I assumed my
16 current role of Vice President CCP Operations, Maintenance and Governance.

1 **Q. WHAT ARE YOUR PRIMARY RESPONSIBILITIES AS THE VICE**
2 **PRESIDENT CCP OPERATIONS, MAINTENANCE AND**
3 **GOVERNANCE?**

4 A. As Vice President of CCP Operations, Maintenance and Governance, I am
5 responsible for operations support, regulatory affairs, and other centralized
6 CCR management and oversight functions. My team works to define, establish,
7 and maintain fleet CCP standards, programs, processes, and best practices
8 within functional areas for all fossil plant sites. My team also oversees site
9 operations and maintenance of CCP facilities, including ash basins and dams,
10 production landfills, decommissioning and demolition, and byproducts
11 management.

12 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION**
13 **OR OTHER STATE PUBLIC UTILITY COMMISSIONS?**

14 A. I have not testified before this Commission but have provided written testimony
15 in cases before the Florida Public Service Commission in Docket Nos.
16 20180007-EI, 20190007-EI, 20200007-EI, 20210007-EI, and the Indiana
17 Utility Regulatory Commission in Cause Nos. 42061-ECR37 and 45749
18 regarding coal ash recovery.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

2 A. My testimony is presented to support cost recovery for activities undertaken by
3 the Company in connection with closure of its coal ash basins¹ and landfills,
4 along with other CCR management units, for the period from March 1, 2020
5 through March 31, 2022 and costs to be incurred from April 1, 2022 through
6 April 30, 2023. The costs sought for recovery are as follows:

Station	Actual and Forecast System Spend March 1, 2020 - April 30, 2023 ² (in millions)	Actual and Forecast System Spend March 1, 2020 - April 30, 2023 ² NC Retail Level (in millions)
Asheville	\$72	\$44
Cape Fear	\$147	\$90
HF Lee	\$163	\$100
Mayo	\$83	\$51
Robinson	\$46	\$28
Roxboro	\$149	\$92
Sutton	\$31	\$19
Weatherspoon	\$23	\$14
DEP Total ³	\$713	\$440

7 In Section III of my testimony, I provide additional site-by-site detail related to
8 these costs, as well as descriptions of the activities that generated the costs.
9 DEP's closure activities are driven by environmental laws, rules and
10 regulations. Compliance with these legal requirements is mandatory for the
11 Company.⁴

¹ In my testimony, I also refer to the Company's coal ash basins as "ponds" and "surface impoundments." For purposes of my testimony, these terms are used interchangeably.

² This amount excludes costs for bottled / drinking water and beneficial re-use, where applicable.

³ Totals may not foot due to rounding.

⁴ My testimony does not repeat the regulatory framework that has resulted in the Company's obligation to close its CCR management units. That framework was described in detail in testimony previously presented to the Commission by Witnesses Jon Kerin and Jessica Bednarcik in DEP's prior two general

1 My testimony demonstrates that the actual and forecasted activities and
2 costs in connection with CCR unit closure between March 1, 2020, and March
3 31, 2022, are reasonable and prudent. Specifically, my testimony shows that
4 DEP's closure activities have been implemented in accordance with closure
5 plans and (as applicable) corrective action plans as approved by the relevant
6 state environmental agencies – in North Carolina, the Department of
7 Environmental Quality ("DEQ"); and in South Carolina, the Department of
8 Health and Environmental Control ("DHEC"). In this case, however, the
9 Company has reduced its request for recovery of otherwise recoverable coal ash
10 costs by \$162 million, in order to fulfill its obligations under the Coal
11 Combustion Residuals Settlement Agreement ("CCR Settlement Agreement")
12 approved by the Commission in the Company's immediately prior rate case (*see*
13 *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring*
14 *Customer Notice*, Docket No. E-2, Sub 1219 (Apr. 16, 2021)). Details of this
15 reduction in the amount requested for recovery are provided in the testimony of
16 Witness LaWanda Jiggetts.

17 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

18 A. In Section I, I have provided information concerning my background and the
19 purpose of my testimony. In Section II, I provide a high-level summary of the
20 factors that lead me to conclude that the coal ash costs incurred by DEP for
21 which recovery is sought in this case are reasonable and prudent. In Section

rate cases, Docket Nos. E-2, Sub 1142 and E-2, Sub 1219. Suffice it to say that DEP is legally required to close each of these units, and is in the process of doing so.

1 III, I describe the Company's CCR compliance and closure activities at each
2 DEP site for the period March 1, 2020, through April 30, 2023. I demonstrate
3 how those activities and associated costs were necessary, appropriate, timely,
4 and consistent with site closure plans and applicable regulatory requirements.

5 **Q. ARE YOU PROVIDING ANY EXHIBITS WITH YOUR TESTIMONY?**

6 A. Yes. I have attached eight total exhibits that I discuss further herein.

7 **Q. WERE HILL EXHIBITS 1 THROUGH 8 PREPARED OR PROVIDED**
8 **HEREIN BY YOU, UNDER YOUR DIRECTION AND SUPERVISION?**

9 A. Yes, they were.

10 **II. CCR COSTS INCURRED BY THE COMPANY ARE REASONABLE**
11 **AND PRUDENT**

12 **Q. TURNING FIRST TO THE ACTUAL CLOSURE COSTS INCURRED**
13 **BY THE COMPANY, WERE YOU ABLE TO REACH A CONCLUSION**
14 **ABOUT WHETHER THE COSTS AND ACTIVITIES THAT YOU**
15 **DESCRIBE IN YOUR TESTIMONY WERE REASONABLE AND**
16 **PRUDENT?**

17 A. Yes. Based upon my training, experience, understanding of the Company's
18 regulatory obligations, and review of the Company's records, I can conclude
19 that the actual and forecasted activities and costs to close the DEP CCR storage
20 areas were reasonable and prudent.

21 **Q. WHAT FACTORS DID YOU CONSIDER WHEN MAKING YOUR**
22 **REASONABLENESS AND PRUDENCY DETERMINATION?**

23 A. I evaluated the reasonableness and prudence of the Company's closure
24 activities and associated costs based upon the following criteria: 1) whether the

1 activities performed and to be performed are necessary; 2) whether the costs for
2 the necessary activities are appropriate; and 3) whether the closure projects are
3 meeting Company and regulatory deadlines.

4 **Q. ARE THE CLOSURE ACTIVITIES THAT ARE DESCRIBED IN YOUR**
5 **TESTIMONY NECESSARY?**

6 A. Yes. As part of my role within CCP, I have become well-versed in the federal
7 and state regulatory obligations relating to DEP's CCR management areas.
8 These regulations dictate how and by when closure must be achieved and
9 dictate other specific environmental requirements. For any major undertaking,
10 like the closure projects described above, Duke Energy relies on both Company
11 and third-party technical experts to provide consulting, engineering, and
12 construction services. For each site, the closure activities are based on
13 strategies, plans, scientific expertise, and schedules developed through
14 coordination between technical experts both within and outside the Company
15 to satisfy regulatory obligations. Each closure activity for which the Company
16 is requesting cost recovery aligns with the Company's obligations under the
17 CCR Rule and can be traced to specific provisions of the CCR Rule, state
18 regulatory requirements, or direction from state regulatory agencies. Therefore,
19 I have concluded that the closure activities described in my testimony for each
20 DEP site were necessary to comply with the Company's regulatory obligations.

1 **Q. HAS THE COMPANY TAKEN SUFFICIENT MEASURES TO ENSURE**
2 **THAT COSTS FOR ITS CLOSURE PROJECTS ARE**
3 **APPROPRIATELY MANAGED AND MINIMIZED?**

4 A. Yes. DEP has a robust system in place to review the costs of its CCR Unit
5 closure projects from inception to payment. Specifically, DEP has implemented
6 and follows strict contracting policies and procedures to receive and evaluate
7 bids for its closure activities. Purchases are procured under the purview of the
8 Duke Energy Purchasing Controls Policy, which lays out requirements for
9 competitive bidding, vendor selection and purchase order use. All expenditures
10 against purchase orders are reviewed and approved under the requirements
11 documented in the Delegation of Authority Policy.

12 DEP also maintains detailed budgets, which are updated quarterly to
13 incorporate the knowledge and experience the Company has gained during the
14 project. Scope changes or estimate deviations are documented and approved as
15 appropriate.

16 These processes are utilized to ensure the costs that the Company has
17 incurred and will incur for tasks associated with the CCR Rule, North
18 Carolina's Coal Ash Management Act ("CAMA"), and other state regulatory
19 requirements, are not exorbitant, unnecessary, wasteful, or extravagant and are
20 consistent with the costs of similar services on the open market. The costs
21 incurred for all closure activities were, and continue to be, reviewed through
22 rigorous purchasing and expenditure review processes.

1 **Q. ARE THE COMPANY'S CLOSURE ACTIVITIES PROCEEDING ON**
2 **SCHEDULE?**

3 A. Yes. Complex projects require coordination between company personnel,
4 permitting authorities, and contractors. To that end, DEP has developed
5 extensive and detailed plans and schedules related to each aspect of the overall
6 site closure.

7 I have visited each site and met with site managers, and I regularly
8 discuss the status and progress of the closure projects. I have also reviewed site
9 closure plans and schedules. I have reviewed status reports covering March 1,
10 2020, to the present and have attended monthly project status review meetings.

11 The closure plans and schedules the Company has developed for each
12 site detail the tasks and strategy being executed to meet its regulatory deadlines
13 and performance standards. Where applicable, plans were submitted to and
14 approved by regulatory agencies and made available to the public, and the
15 Company developed schedules to meet the approved commitments. Schedules
16 are reviewed, at a minimum, monthly with senior management to ensure
17 adherence to regulatory requirements and deadlines. Inevitably, all complex
18 projects face complicating factors, which may require modification of plans and
19 schedules. DEP's managerial oversight of these projects ensures that the
20 Company will still be able meet its regulatory obligations despite these
21 complications. DEP's management also maintains a direct line of
22 communication with regulators in the event plans or schedules may need to be
23 modified. DEP's closure projects are all on target to meet applicable regulatory

1 requirements. Therefore, I have concluded that the Company has been properly
2 managing its closure projects to ensure compliance with project schedules,
3 performance standards, and regulatory deadlines.

4 **III. SITE-BY-SITE CLOSURE ACTIVITIES AND ASSOCIATED**
5 **COSTS**

6 **Q: PLEASE DESCRIBE THE PROCESS USED TO DEVELOP CLOSURE**
7 **PLANS THE COMPANY IS IMPLEMENTING.**

8 A. The closure plans for each site reflect site-specific conditions, and were
9 developed based on specific and often overlapping regulatory requirements.
10 The Company engages third party engineers to develop plan specifics, which
11 are submitted to the applicable state agencies for review and approval. For
12 basins covered by the federal CCR Rule, closure plan specifics are left to the
13 Company to develop in partnership with the applicable state agency, which
14 holds final approval authority. The agency is required by the CCR Rule to
15 obtain public input into the proposed closure plan for facilities covered by the
16 Rule. If the basin requires groundwater corrective actions, the Company must
17 conduct an assessment of corrective measures, hold public meetings, and select
18 a remedy to restore groundwater quality.

19 Once approved, these plans become a roadmap for the Company to
20 execute the closure project. An analysis of each of the Company's sites follows.

1 A. **ROXBORO**

2 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
3 **OPERATIONAL HISTORY OF THE ROXBORO PLANT?**

4 A. Yes. The operational history of the Roxboro Plant is described in Hill Exhibit
5 1 to my testimony.

6 **Q. PLEASE SUMMARIZE THE CLOSURE AND CORRECTIVE ACTION**
7 **PLANS FOR THE ROXBORO PLANT.**

8 A. As shown in Hill Exhibit 1, Roxboro has two ash basins, the East Ash Basin
9 and the West Ash Basin, and two flue gas desulfurization (“FGD”)⁵ ponds
10 within the West Ash Basin. The approved closure plan for Roxboro requires
11 the Company to remove the CCR from both Ash Basins and dispose it in the
12 on-site landfill. The East Ash Basin will have a limited amount of ash that will
13 remain in place under an existing permitted landfill. Other activities required
14 by the approved closure plan include removal and treatment of the basin water,
15 constructing additional cells for the on-site landfill, constructing stabilization
16 and seepage cut-off walls using a deep mixing method or other suitable
17 approach around sections of the perimeter of the East Ash Basin landfill,
18 validating clean closure, breaching the dams for the West Ash Basin and
19 establishing final grades.

20 In addition to the closure plans for the basins, the Roxboro Plant has an
21 approved Corrective Action Plan to address groundwater remediation. This

⁵ FGD technology was installed in order to reduce sulfur dioxide emissions from plant operations as required by the North Carolina Clean Smokestack Act.

1 plan addresses three source areas: 1) The East Ash Basin, 2) the West Ash
2 Basin, and 3) two additional source areas known as the Gypsum Storage Area
3 (“GSA”) and the Dry Fly Ash Handling Area (“DFAHA”). The plan requires
4 dewatering to remove hydraulic pressure in the East and West Ash Basins, and
5 actively addressing constituents of interest (“COIs”) at or beyond the East Ash
6 Basin geographical limitation using groundwater extraction, as well as
7 groundwater extraction and clean water infiltration for the DFAHA and GSA.
8 Groundwater corrective action is not required for the West Ash Basin.

9 In the CCR Settlement Agreement, the settling parties – the Company
10 and DEC; the Public Staff-North Carolina Utilities Commission; the North
11 Carolina Attorney General’s Office; and the Sierra Club – agreed that “the
12 closure plans and corrective action plans for each site [the referenced DEP sites
13 were Roxboro and Mayo] to be approved by DEQ (as may be amended by DEQ
14 in the future) are reasonable, prudent, in the public interest, and consistent with
15 law.” (CCR Settlement Agreement, Section III.C). The closure activities
16 undertaken by the Company have been performed in accordance with the DEQ-
17 approved plans.

18 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
19 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
20 **IMPLEMENT THE ROXBORO PLANT’S CLOSURE AND**
21 **CORRECTIVE ACTION PLANS.**

22 **A.** In June 2020, Duke Energy initiated a bid event for ash basin excavation and
23 landfill construction that address seven sites across North Carolina and South

1 Carolina. These included two DEP sites, Roxboro, and Mayo. The remaining
2 five sites were for DEC facilities. After receiving and analyzing the bid
3 responses from eleven contractors, DEP selected TransAsh as the primary
4 contractor for Roxboro in February 2021 and signed a Master Services
5 Agreement to execute landfill construction and ash basin closure.

6 TransAsh mobilized to the site in the second quarter of 2021 and began
7 excavating ash from the ash basins and placing it in the existing landfill. In late
8 2021, DEP received permits from DEQ authorizing the construction of new
9 cells for the on-site landfill. Construction of the first phase of the new landfill
10 cells began in early 2022, and DEP anticipates that the new landfill cells will
11 be able to accept excavated coal ash from the ash basins in 2023.

12 From March 1, 2020 through April 30, 2023, DEP has conducted or will
13 conduct the following additional activities in support of ash basin closure:

- 14 • Clear and develop soil borrow areas.
- 15 • Decommissioned the FGD pond and settling basins.
- 16 • Remove the plant's Land Clearing and Inert Debris ("LCID") landfill.
- 17 • Design and construct deep material mixing stability walls.
- 18 • Implemented phase 1 of the groundwater Corrective Action Plan to
19 pump and treat groundwater.
- 20 • Construct and operate the ash basin dewatering and treatment systems.
- 21 • Collect and analyze groundwater samples and prepare environmental
22 and engineering reports for State and Federal regulators.

1 In this case the Company seeks recovery of actual costs from March 1, 2020
2 through March 31, 2022, plus estimated costs from April 1, 2022 through
3 April 30, 2023, which together total \$149 million. The amount allocated on
4 a North Carolina retail basis is \$92 million.

5 **B. MAYO**

6 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
7 **OPERATIONAL HISTORY OF THE MAYO PLANT?**

8 A. Yes. The operational history of the Mayo Plant is described in Hill Exhibit 2
9 to my testimony.

10 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE AND**
11 **CORRECTIVE ACTION PLANS FOR THE MAYO PLANT.**

12 A. As shown in Hill Exhibit 2, Mayo has one Ash Basin and two FGD Ponds
13 located within the Ash Basin. The approved closure plan for the site requires
14 the Company to remove the CCR from the Ash Basin and FGD Ponds and
15 dispose it in an on-site landfill. Other activities required by the approved closure
16 plan include removal and treatment of the basin water, constructing an
17 additional landfill and associated cells, validating clean closure, breaching the
18 Ash Basin dam, and establishing final grades.

19 Regarding the site's Corrective Action Plan, since groundwater/surface
20 water interaction has not caused and is not predicted to cause constituent
21 concentrations greater than North Carolina Administrative Code, Title 15A,
22 Subchapter 02B, Surface Water and Wetland Standards (02B), the approved

1 plan does not require active remediation, only basin decanting followed by
2 confirmatory monitoring.

3 Like Roxboro, the CCR Settlement Agreement addresses the prudence
4 of the DEQ-approved closure plan, and the closure activities described below
5 have been performed in accordance with this approved plan.

6 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
7 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
8 **IMPLEMENT THE MAYO PLANT'S CLOSURE PLAN.**

9 A. In June 2020, Duke Energy initiated a bid event for ash basin excavation and
10 landfill construction that addressed seven sites across North Carolina and South
11 Carolina. These included two DEP sites, Roxboro, and Mayo. The remaining
12 five sites were for DEC facilities. After receiving and analyzing the bid
13 responses from eleven contractors, DEP selected Charah as the primary
14 contractor for Mayo in February 2021 and signed a Master Services Agreement
15 to execute the process of landfill construction and ash basin closure.

16 Charah mobilized to the site in the second quarter of 2021 and began
17 excavating ash from the ash basin and placing it in the existing on-site landfill.
18 In late 2021, DEP received permits from the North Carolina DEQ authorizing
19 the construction of the new on-site landfill, which is being constructed just north
20 of the ash basin ("Ash Basin Landfill" or "ABLF"). Initial construction
21 activities for the ABLF began in January 2022. DEP anticipates receiving a
22 permit to operate the first landfill cell in 2023.

1 From March 1, 2020, through April 30, 2023, DEP has conducted or
2 will conduct the following additional activities in support of ash basin closure
3 and CCR compliance:

- 4 • Clear and develop soil borrow areas.
- 5 • Decommissioned the FGD Ponds.
- 6 • Constructed and operate the ash basin dewatering and treatment system.
- 7 • Collect and analyze groundwater samples and prepare environmental
8 and engineering reports for State and Federal regulators.

9 In this case the Company seeks recovery of actual costs from March 1, 2020,
10 through March 31, 2022, plus estimated costs from April 1, 2022 through April
11 30, 2023, which together total \$83 million. The amount allocated on a North
12 Carolina retail basis is \$51 million.

13 **C. WEATHERSPOON**

14 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
15 **OPERATIONAL HISTORY OF THE WEATHERSPOON PLANT?**

16 A. Yes. The operational history of the Weatherspoon Plant is described in Hill
17 Exhibit 3 to my testimony.

18 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE PLAN AND**
19 **CORRECTIVE ACTION PLAN FOR THE WEATHERSPOON PLANT.**

20 A. As shown in Hill Exhibit 3, Weatherspoon has a single Ash Basin. The
21 approved closure plan requires the Company to remove the CCR from the basin.
22 The CCR is being sent to two cement kilns in South Carolina, where it is used
23 to manufacture Portland cement. Other activities required by the approved

1 closure plan include removal and treatment of the basin water, validating clean
2 closure, breaching the Ash Basin dam, and establishing final grades. The
3 Groundwater Corrective Action Plan for the Weatherspoon site will be
4 submitted to DEQ in 2023.

5 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
6 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
7 **IMPLEMENT THE WEATHERSPOON SITE'S CLOSURE PLAN.**

8 A. From March 1, 2020, through April 30, 2023, DEP has conducted or will
9 conduct the following activities in support of ash basin closure:

- 10 • Maintain the ash basin in a dewatered state.
- 11 • Continue ash basin stabilization testing and analysis.
- 12 • Collect and analyze groundwater samples and prepare environmental
13 and engineering reports for State and Federal regulators.

14 In this case the Company seeks recovery of actual costs from March 1, 2020,
15 through March 31, 2022, plus estimated costs from April 1, 2022 through April
16 30, 2023, which together total \$23 million. The amount allocated on a North
17 Carolina retail basis is \$14 million.

18 **D. H.F. LEE**

19 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
20 **OPERATIONAL HISTORY OF THE H.F. LEE PLANT?**

21 A. Yes. The operational history of the H.F. Lee plant is described in Hill
22 Exhibit 4 to my testimony.

1 **Q. PLEASE DESCRIBE THE COMPANY’S CLOSURE PLAN AND**
2 **CORRECTIVE ACTION PLAN FOR THE H.F. LEE PLANT.**

3 A. As shown in Hill Exhibit 4 the H.F. Lee site has the 1982 Ash Basin, three
4 historic closed basins referred to as the Inactive Ash Basins (“IABs”), and a
5 Lay-of-the Land Area (“LOLA”). H.F. Lee was selected for the installation of
6 a beneficiation project pursuant to CAMA. DEP contracted with SEFA for
7 utilization of its STAR® technology to process the ash from the site through
8 the beneficiation plant for use in cementitious products.

9 The approved closure plan for the site requires the Company to remove
10 the CCR and transport it to the on-site STAR® Unit for reprocessing. Other
11 activities required by the approved closure plan include removal and treatment
12 of the basin water, conditioning of the ash prior to transport to the STAR® Unit,
13 construction of haul roads to and from the STAR® Unit, validating clean
14 closure, breaching the Ash Basin dams, and establishing final grades. The
15 Groundwater Corrective Action Plan for H.F. Lee will be submitted to DEQ in
16 the fourth quarter of 2022.

17 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
18 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
19 **IMPLEMENT THE H.F. LEE SITE’S CLOSURE PLAN.**

20 A. As of March 1, 2020, the STAR® unit was under construction, and DEP had
21 begun planning and preparation activities to supply feed ash in anticipation of
22 unit start-up. The STAR® unit was completed and entered service in September
23 2020, and DEP began hauling ash from the 1982 Basin to the unit for

1 processing. In May 2021, DEP awarded Sequoia a contract to perform dam
2 stabilization work for the IABs. Dam stabilization activities at the IABs were
3 completed in June 2022. Sequoia was also awarded a contract in June of 2022
4 to perform excavation activities at the IABs. IAB ash is hauled to the 1982
5 Basin where it is conditioned with 1982 Basin ash to optimize feed ash quality
6 for STAR® unit performance. In 2022 DEP held a bid event for excavation,
7 screening, and conditioning for the 1982 Basin. This work was awarded to Tetra
8 Tech in July 2022.

9 From March 1, 2020, through April 30, 2023, DEP has conducted or
10 will conduct the following additional activities in support of ash basin closure
11 and CCR compliance:

- 12 • Completed upgrading the existing bridge over the Neuse River to allow
13 trucks to safely deliver excavated CCR to the STAR® unit.
- 14 • Constructed a new bridge over the diversion canal to accommodate
15 truck traffic and CCR deliveries to the STAR® unit.
- 16 • Completed construction or expansion of various haul roads to support
17 hauling CCR to the STAR® unit.
- 18 • Completed installation and operation of water treatment systems in the
19 1982 Basin and IABs.
- 20 • Installed infrastructure to support the ash excavation activities,
21 including a truck wash and a wheel wash.
- 22 • Installed a separation liner within the 1982 basin to allow IAB ash to be
23 conditioned with 1982 Basin ash.

- 1 • Hauled co-mingled and CCR materials that do not meet STAR®
- 2 processing specifications to an off-site landfill for disposal.
- 3 • Collect and analyze groundwater samples and prepare environmental
- 4 and engineering reports for State and Federal regulators.

5 In this case the Company seeks recovery of actual costs from March 1, 2020,

6 through March 31, 2022, plus estimated costs from April 1, 2022 through April

7 30, 2023, which together total \$163 million. The amount allocated on a North

8 Carolina retail basis is \$100 million.

9 **E. CAPE FEAR**

10 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**

11 **OPERATIONAL HISTORY OF THE CAPE FEAR PLANT?A.**

12 A. Yes. The operational history of Cape Fear Station is described in further detail

13 in Hill Exhibit 5 to my testimony.

14 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE PLAN AND**

15 **CORRECTIVE ACTION PLAN FOR THE CAPE FEAR STATION.**

16 A. As shown in Hill Exhibit 5, the Cape Fear Steam Station has five legacy CCR

17 basins, which are referred to by their respective date of construction: 1956,

18 1963, 1970, 1978, and 1985. Cape Fear was selected for the installation of a

19 beneficiation project pursuant to CAMA. DEP contracted with SEFA for

20 utilization of its STAR® technology to process the ash from the site through

21 the beneficiation plant for use in cementitious products. The approved closure

22 plan for the site requires the Company to remove the CCR from all basins and

23 transport it to the on-site STAR® Unit for reprocessing. Other activities

1 required by the approved closure plan include removal and treatment of the
2 basin water, conditioning of the ash prior to transport to the STAR® Unit,
3 including stockpiling, construction of haul roads to and from the STAR® Unit,
4 validating clean closure, breaching the Ash Basin dams, and establishing final
5 grades. The Groundwater Corrective Action Plan for Cape Fear will be
6 submitted to DEQ in the fourth quarter of 2022.

7 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
8 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
9 **IMPLEMENT THE CAPE FEAR SITE'S CLOSURE PLAN.**

10 A. As of March 1, 2020, the STAR® unit was under construction, and DEP had
11 begun planning and preparation activities to supply feed ash in anticipation of
12 unit start up. The STAR® unit was completed and entered service in January
13 2021, and DEP began hauling ash from the 1985 Basin to the unit for
14 processing. A contract was awarded to Charah for excavation of the 1956 Basin
15 in the second quarter of 2021, and it began conditioning this ash with ash from
16 the 1985 Basin to optimize feed ash quality for STAR® unit performance. Ash
17 removal from the 1956 Basin will be complete in 2022. In September of 2021,
18 the 1985 Ash Basin experienced a sloughing event, and Charah's scope was
19 expanded to include the stabilization of the slough area. In the first quarter of
20 2022, a bid event was initiated for the excavation of the remaining ash from the
21 1963, 1970, 1978, and 1985 ash basins. Charah was awarded this contract in
22 July of 2022.

1 From March 1, 2020, through April 30, 2023, DEP has conducted or
2 will conduct the following additional activities in support of ash basin closure:

- 3 • Construct an auxiliary overflow spillway on the 1956 and 1970 ash
4 basins to meet DEQ dam safety requirements.
- 5 • Completed construction or expansion of various haul roads on-site
6 between the 1985 Basin, the 1956 Basin, and the STAR® unit.
- 7 • Installed infrastructure to support the ash excavation activities,
8 including a truck wash and a wheel wash.
- 9 • Operate the ash basin dewatering and treatment system.
- 10 • Hauled co-mingled and CCR materials that do not meet STAR®
11 processing specifications to an off-site landfill for disposal.
- 12 • Collect and analyze groundwater samples and prepare environmental
13 and engineering reports for State and Federal regulators.

14 In this case the Company seeks recovery of actual costs from March 1, 2020,
15 through March 31, 2022, plus estimated costs from April 1, 2022 through April
16 30, 2023, which together total \$147 million. The amount allocated on a North
17 Carolina retail basis is \$90 million.

1 **F. ASHEVILLE**

2 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
3 **OPERATIONAL HISTORY OF THE ASHEVILLE PLANT?**

4 A. Yes. The operational history of the Asheville plant is described in further detail
5 in Hill Exhibit 6 to my testimony.

6 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE PLAN AND**
7 **CORRECTIVE ACTION PLAN FOR THE ASHEVILLE PLANT.**

8 A. As shown in Hill Exhibit 6, the Asheville plant has two ash basins, the 1964
9 Ash Basin and the 1982 Ash Basin. The closure plan for the Asheville plant
10 requires the Company to excavate all CCR for transport to a landfill or for
11 beneficial use. The footprint of the 1982 Basin, where excavation was
12 completed in September 2016, was used for the construction of a new combined
13 cycle plant. In February 2020, DEQ approved a permit to construct an on-site
14 landfill, and the landfill was completed and began receiving 1964 Basin ash in
15 April of 2021. Other activities required by the approved closure plan include
16 removal and treatment of the basin water, validating clean closure, breaching
17 the Ash Basin dam, and establishing final grades. The Groundwater Corrective
18 Action Plan for Asheville will be submitted to DEQ in the fourth quarter of
19 2022.

1 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
2 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
3 **IMPLEMENT THE ASHEVILLE SITE'S CLOSURE PLAN.**

4 A. As of March 1, 2020, DEP had signed a contract with Waste Management
5 Industries to begin the process of constructing the new on-site landfill, and
6 excavating, drying, and stacking ash from the 1964 Basin. In April 2021, DEP
7 received the permit to operate the landfill and began placing ash from the 1964
8 Basin into the landfill. In July of 2022, DEP completed removal of all the
9 remaining ash from the 1964 Basin.

10 From March 1, 2020, through April 30, 2023, DEP has conducted or
11 will conduct the following additional activities in support of ash basin closure:

- 12 • Obtained required permits to decommission the 1964 Ash Basin dam
13 and began decommissioning.
- 14 • Initiate closure of the on-site CCR landfill.
- 15 • Grade the 1964 Ash Basin interior.
- 16 • Collect and analyze groundwater samples and prepare environmental
17 and engineering reports for State and Federal regulators.

18 In this case the Company seeks recovery of actual costs from March 1, 2020,
19 through March 31, 2022 plus estimated costs from April 1, 2022 through April
20 30, 2023, which together total \$72 million. The amount allocated on a North
21 Carolina retail basis is \$44 million.

1 **G. SUTTON**

2 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
3 **OPERATIONAL HISTORY OF THE SUTTON PLANT?**

4 A. Yes. The operational history of the Sutton plant is described in further detail in
5 Hill Exhibit 7 to my testimony.

6 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE PLAN AND**
7 **CORRECTIVE ACTION PLAN FOR SUTTON.**

8 A. As shown in Hill Exhibit 7, Sutton Station had two CCR basins, the 1971 and
9 1982 Ash Basins, as well as a LOLA. The closure plan for the Sutton Station
10 required all CCR be removed and transported either 1) to off-site beneficial
11 reuse at the Brickhaven Clay Mine in Chatham County North Carolina, or 2) to
12 a new on-site landfill. Other activities required by the approved closure plan
13 include removal and treatment of the basin water, validating clean closure,
14 breaching the Ash Basin dams, and establishing final grades. The Sutton Station
15 has an approved groundwater Corrective Action Plan that requires the Company
16 to maintain nine extraction wells and an associated water treatment system, as
17 well as a post-excavation Effectiveness Monitoring Plan.

18 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
19 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
20 **IMPLEMENT THE SUTTON SITE'S CLOSURE AND CORRECTIVE**
21 **ACTION PLANS.**

22 A. As of March 1, 2020, the Company had completed excavation of the 1971 and
23 1984 Basins and was in the process of excavating ash from the LOLA. LOLA

1 excavation was completed in 2020, and the landfill received a post closure
2 permit from DEQ in 2021. DEP continues to manage CCR closure and
3 compliance obligations through its Post-Closure Plans for the former ash
4 basins, LOLA, and the on-site landfill.

5 From March 1, 2020, through April 30, 2023, DEP has conducted or
6 will conduct the following activities in support of ash basin closure and CCR
7 compliance:

- 8 • Perform periodic inspections as required by Post-Closure Plans and
9 permits.
- 10 • Perform landfill leachate and extracted groundwater treatment.
- 11 • Maintain site perimeter control and security measures.
- 12 • Operate and maintain groundwater extraction wells.
- 13 • Collect and analyze groundwater samples and prepare environmental
14 and engineering reports for State and Federal regulators.

15 In this case the Company seeks recovery of actual costs from March 1, 2020,
16 through March 31, 2022 plus estimated costs from April 1, 2022 through April
17 30, 2023, which together total \$31 million. The amount allocated on a North
18 Carolina retail basis is \$19 million.

1 **H. ROBINSON**

2 **Q. HAVE YOU PREPARED AN EXHIBIT THAT DETAILS THE**
3 **OPERATIONAL HISTORY OF THE ROBINSON PLANT?**

4 A. Yes. The operational history of the Robinson Plant is described in further detail
5 in Hill Exhibit 8 to my testimony.

6 **Q. PLEASE DESCRIBE THE COMPANY'S CLOSURE PLAN FOR THE**
7 **ROBINSON PLANT.**

8 A. As shown in Hill Exhibit 8, the Robinson Plant has an Ash Basin and an Ash
9 Fill Area (also referred to as the LOLA). The closure plan for the Robinson site
10 requires all CCR be excavated to a new on-site landfill. Other activities
11 required by the approved closure plan include the development of an Ash
12 Removal Plan, relocation of an associated transmission and sewer line,
13 stormwater management, connection to the City of Hartsville pump station for
14 leachate treatment, submission of monthly progress reports, verification of
15 clean closure, and sampling of surface and groundwater. The Robinson site
16 does not require a groundwater Corrective Action Plan currently, only
17 continued monitoring as required by the CCR Rule.

18 **Q. PLEASE SUMMARIZE THE ACTIVITIES TAKEN BY THE**
19 **COMPANY FROM MARCH 1, 2020 THROUGH APRIL 30, 2023 TO**
20 **IMPLEMENT THE ROBINSON SITE'S CLOSURE PLAN.**

21 A. As of March 1, 2020, DEP had received a permit to operate the first cell in the
22 on-site landfill and began excavating and hauling ash from the 1960 Ash Fill
23 Area and the Ash Basin. Excavation of the Ash Fill Area was completed in

1 August 2021, and DEP is currently working with DHEC to obtain final clean
2 closure certification. From March 1, 2020, through April 30, 2023, DEP has
3 conducted or will conduct the following additional activities in support of
4 closure and CCR compliance:

- 5 • Completed construction of additional landfill cells and leachate
6 collection system expansion.
- 7 • Decommission ash basin dam and remove the riser structure.
- 8 • Collect and analyze groundwater samples and prepare environmental
9 and engineering reports for State and Federal regulators.

10 In this case the Company seeks recovery of actual costs from March 1, 2020,
11 through March 31, 2022, plus estimated costs from April 1, 2022 through April
12 30, 2023, which together total \$46 million. The amount allocated on a North
13 Carolina retail basis is \$28 million.

14 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

15 **A. Yes.**

Roxboro Steam Station Person County, North Carolina

Site History

The Roxboro Steam Station (“Roxboro”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1966. Roxboro currently has four coal-fired generating units in service.

Roxboro has two ash basins. The East Ash Basin was constructed in 1963 prior to the plant becoming operational. The East Ash Basin was vertically expanded in 1973. Also in 1973, the Company constructed the West Ash Basin by damming a portion of Sargents Creek. In 1983, the East Ash Basin reached capacity and was taken out of service.

In 1988, the Company converted Roxboro to dry ash handling and brought into service an onsite, partially lined coal ash monofill known as the Roxboro Industrial Landfill. The Roxboro Industrial Landfill was constructed partially within the footprint of the East Ash Basin and is permitted to receive bottom ash, fly ash, gypsum and other CCR. In 2008, the Company completed construction of the West Settling Pond, a flue gas desulfurization (“FGD”) Flush Pond, and the East Settling Pond. These CCR units were constructed to receive scrubber wastewater from the plant’s FGD system, which was installed to reduce emissions of sulfur dioxide in response to the North Carolina Clean Smokestacks Act. An aerial view of the Roxboro ash basin and storage areas (collectively, the “CCR Units”) is provided in **Figure 1** below.



Figure 1 – Aerial showing CCR Units at Roxboro

Mayo Steam Station Person County, North Carolina

Site History

The Mayo Steam Station (“Mayo”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1983. Mayo has one ash basin, which was constructed in 1982 to receive coal combustion residuals (“CCR”) from the plant’s coal-fired generation unit. In response to the North Carolina Clean Smokestacks Act, the Company installed a scrubber system on the coal-fired unit at Mayo to control emissions. The process water from the scrubber, known as flue-gas desulfurization (“FGD”) sludge, necessitated the construction of a flush pond and settling basin, which were completed by 2009. The flush pond and settling basin were constructed either within or partially within the footprint of the Ash Basin.

In 2013, the Mayo Plant converted from a wet ash system (sluicing) to a dry ash system. During the conversion and until November 2014, CCR were transported to a lined landfill located at the Roxboro Plant. Since November 2014, CCRs have been placed in an onsite coal combustion product monofill (“CCP Monofill”). The CCP Monofill was constructed with an engineered liner and is permitted to receive fly ash, bottom ash, gypsum, and other CCR.

An aerial view of the Mayo ash basin and storage areas (collectively, the “CCR Units”) is provided in **Figure 2** below.



Figure 2 – Aerial showing CCR Units at Mayo

Weatherspoon Steam Station Robeson County, North Carolina

Site History

The Weatherspoon Steam Station (“Weatherspoon”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1949 when the first of three coal-fired units came online. The original ash basin at the site was constructed in 1955 to receive sluiced coal combustion residuals (“CCR”) from the plant’s coal unit. The ash basin underwent two expansions in 1963 and 1979. The 1979 expansion brought the basin to its current size, and the basin is now referred to as the 1979 Ash Basin. In 2002, a dry stack disposal area was constructed in the north end of the ash basin. In 2007, a vertical expansion was constructed southeast of the dry stack area within the Basin. The Weatherspoon Plant ceased use of coal-fired electric generation units and stopped sluicing CCRs to the 1979 Ash Basin in October 2011. The site still has four oil-fired (fast-start and black-start) combustion turbines that are active.

An aerial view of the Weatherspoon ash basin is provided in **Figure 3** below.



Figure 3 – Aerial showing CCR Units at Weatherspoon

H.F. Lee Steam Station Wayne County, North Carolina

Site History

The H.F. Lee Steam Station (“H.F. Lee”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1951. Over its life, the H.F. Lee Plant has employed various combinations of electric generation units to produce energy. From 1967 through 1971, four oil-fueled combustion turbine units were added to the facility. In 2000, five simple-cycle, dual fuel (oil and natural gas) units were built. The plant’s coal-fired units were retired in September 2012, followed by the retirement of the four oil-fired combustion turbine units in October 2012. A new combined cycle unit was brought online in 2012.

Coal combustion residuals (“CCR”) from H.F. Lee’s coal-fired units have been stored in the plant’s three inactive ash basins (“IABs 1-3”), the Active Ash Basin (also referred to as the 1982 Ash Basin), and a Lay of Land Area (“LOLA”). IABs 1-3 were built as three storage cells in approximately the late 1950s and early 1960s. Construction of the Active Ash Basin began in 1978 and was completed in April 1980. The Active Ash Basin stopped receiving sluiced CCRs in 2012 when the plant’s coal-fired units were retired.

An aerial view of the H.F. Lee ash basins and storage areas (collectively, the “CCR Units”) is provided in **Figure 4** below.



Figure 4 – Aerial showing CCR Units at H.F. Lee

Cape Fear Steam Station Chatham County, North Carolina

Site History

The Cape Fear Steam Station (“Cape Fear”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1923 and ceased power production in 2012. The Company has operated a total of six coal-fired units and four oil-fueled combustion turbine units at Cape Fear. The coal-fired units were constructed between 1923 and 1969. Two of the site’s six coal-fired units were retired in 1977 and two were retired in 2011. The remaining two coal-fired units, along with one of four oil-fueled combustion turbine units on site, were retired in October 2012. The remaining three oil fired units were retired in April 2013.

Coal combustion residuals (“CCR”) from the plant’s coal-fired units were sluiced to and stored in five onsite ash basins, which are referenced using their date of construction: 1956, 1963, 1970, 1978, and 1985. Sluicing to the 1985 Ash Basin ceased in 2012. The 1956 Ash Basin is located north of the former power production area, and the remaining ash basins are located south of the former power production area. The 1963 and 1970 Ash Basins were constructed on the west side of the site adjacent to the Cape Fear River. The 1978 Ash Basin was constructed east of and abutting the 1963 and 1970 Ash Basins. The 1985 ash basin was constructed east of the existing ash basins.

An aerial view of the Cape Fear ash basins (collectively, the “CCR Units”) is provided in **Figure 5** below.



Figure 5 – Aerial showing CCR Units at Cape Fear

Asheville Steam Station Buncombe County, North Carolina

Site History

The Asheville Steam Station (“Asheville”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1964.

Asheville has two onsite ash basins that were constructed to receive sluiced coal combustion residuals (“CCR”) from the coal-fired units at the plant. Those ash basins are referred to as the 1964 Ash Basin and the 1982 Ash Basin. The 1964 Ash Basin was the first ash basin constructed at the site to receive sluiced CCR from the plant’s original coal-fired unit. The 1964 Ash Basin underwent an expansion around 1971 to increase the basin’s storage capacity. The 1964 Ash Basin was taken out of service in 1982 once the 1982 Basin was completed. After 1982, the 1964 Ash Basin served as additional storage space for CCR removed from the 1982 Ash Basin and served as the location for a wetlands treatment system that was constructed in 2006 to treat flue gas emission control wastewater.

DEP began construction of a second ash basin in 1981 and began operating that basin in 1982. This basin provided additional ash storage capacity. In 2005 an interior dike was constructed in the center of the 1982 Ash Basin that divided the basin into two cells to facilitate settlement of bottom ash and lighter fly ash. In around 2007, DEP began dredging and dewatering the 1982 Ash Basin so as to beneficially reuse the ash at the Asheville Regional Airport as structural fill, and to increase storage capacity. Excavation of the 1982 Basin was completed in 2016, and the construction of a new combined cycle plant began in the footprint of the basin. Construction of the plant was completed in January of 2019, and the then-existing coal-fired units were retired at that time.

An aerial view of the Asheville ash basins (collectively, the “CCR Units”) is provided in **Figure 6** below.

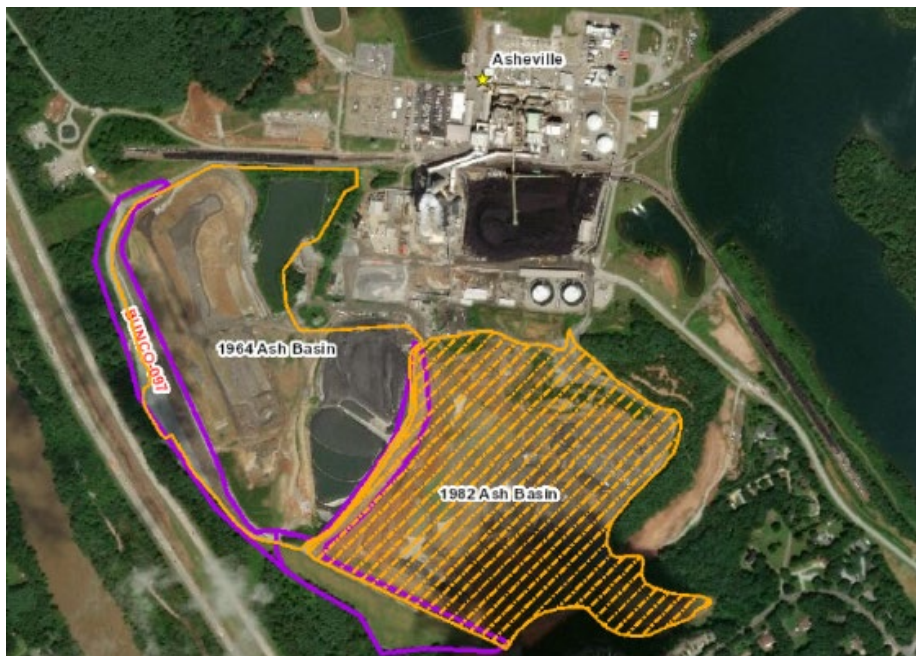


Figure 6 – Aerial showing CCR Units at Asheville

Sutton Steam Station New Hanover County, North Carolina

Site History

The Sutton Steam Station ("Sutton") is a Duke Energy Progress, LLC ("DEP" or the "Company") coal-fired generation facility that began generating coal-fired electricity in 1954. From 1954 to 1971, the Company disposed of coal combustion residuals ("CCR") from its coal-fired unit in the Lay of Land Area ("LOLA") located onsite. In 1971, the Company constructed the first ash basin at the site to receive sluiced bottom and fly ash for storage and disposal. In 1983, the Company expanded storage capacity of the 1971 Ash Basin by raising its dikes. Since this vertical expansion, this original ash basin has been known interchangeably as the 1971 Ash Basin, the 1983 Ash Basin or the 1971/1983 Ash Basin.

In 1984, the Company constructed a clay-lined second ash basin at Sutton Plant located north of the 1971 Ash Basin, known as the 1984 Ash Basin. In 2006, an Interior Containment Area was constructed within the footprint of the 1984 Ash Basin to increase its storage capacity.

The coal-fired units at the Sutton Plant were retired in 2013 and demolished in 2017. They were replaced by a 625 MW natural gas combined-cycle plant that has been operating since 2013.

An aerial view of the Sutton ash basins (collectively, the "CCR Units") is provided in **Figure 7** below.



Figure 7 – Aerial showing CCR Units at Sutton

Robinson Steam Station Darlington County, South Carolina

Site History

The Robinson Steam Station (“Robinson”) is a Duke Energy Progress, LLC (“DEP” or the “Company”) coal-fired generation facility that began generating coal-fired electricity in 1960. In 1971, the Company added a 724 MW nuclear unit to the site. DEP also owns and operates the Darlington Electric Power Plant, which is located just north of Robinson and consists of thirteen natural gas units. The Robinson Plant’s single coal-fired unit was retired in 2012.

Over the life of the Robinson Plant, coal combustion residuals (“CCR”) were stored in either the 1960 Fill Area (also referred to at times as the Lay-of-Land Area or “LOLA”) or the onsite ash basin (“Robinson Ash Basin”). From 1960 to the mid-1970s, CCR from the coal-fired unit were placed in the 1960 Fill Area. The 1960 Fill Area received CCR until the Robinson Ash Basin was constructed in the mid-1970s by damming an unnamed tributary to Black Creek. The Ash Basin received sluiced CCR until Robinson was retired in 2012.

An aerial view of the Robinson ash basin and storage areas (collectively, the “CCR Units”) is provided in **Figure 8** below.



Figure 8 – Aerial showing CCR Units at Robinson